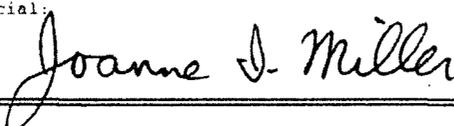


	U.S. ENVIRONMENTAL PROTECTION AGENCY Office of Pesticide Programs Registration Division (7505C) 401 "M" St., S.W. Washington, D.C. 20460	EPA Reg. Number: 264-829	Date of Issuance: APR 11 2005
	NOTICE OF PESTICIDE: <input checked="" type="checkbox"/> Registration <input type="checkbox"/> Reregistration (under FIFRA, as amended)	Term of Issuance: Conditional	
Name and Address of Registrant (include ZIP Code): Bayer CropScience P.O. Box 12014, 2 T.W. Alexander Drive Research Triangle Park, NC 27709			
<p>Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.</p> <p>On the basis of information furnished by the registrant, the above named pesticide is hereby registered/reregistered under the Federal Insecticide, Fungicide and Rodenticide Act.</p> <p>Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.</p> <p>This product is conditionally registered in accordance with FIFRA sec. 3(c)(7)(A) provided that you:</p> <ol style="list-style-type: none"> 1. Submit and/or cite all data required for registration/reregistration of your product when the Agency requires all registrants of similar products to submit data. 2. Make the following label changes listed below before you release the product for shipment: <ol style="list-style-type: none"> a. Add the phrase, "EPA Reg. No. 264-829". b. Since eye irritation and acute dermal toxicity are the most hazardous routes of exposure, move the "If In Eyes:...." and "If on skin or clothing:...." sections to the beginning of the First Aid Table. <p>Since the formulation is in Toxicity Category IV for acute inhalation, you may delete the "If Inhaled:...." section, if you wish.</p>			
Signature of Approving Official: 		Date: APR 11 2005	

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EPA Reg. No. 264-829

c. In the Hazards to Humans section modify "Causes moderate eye irritation" to read "Causes substantial but temporary eye injury". Delete "Wash thoroughly...wash clothing before reuse". These statements duplicate required text in the User Safety Recommendations section. Add:

Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

d. In the PPE and Agricultural Use Requirement sections after "protective eyewear" add "(goggles, face shield or safety glasses)".

e. The term "Ignite Herbicide" appears in several locations on the label including the Storage and Disposal section and Cotton Seed Propagation directions for use. Proof read the label and correct the brand name to "Liberty 280 SL Herbicide" wherever it appears on the labeling.

f. At the end of the Aerial Application directions under Cotton Seed Propagation directions for use add a statement similar to the following:

(See *Spray Drift* section)

3. Submit one (1) copy of your final printed labeling before you release the product for shipment. Refer to the A-79 enclosure for a further description of final printed labeling.

4. Submit the results of storage stability (GRN 830.6317) and corrosion characteristics (GRN 830.6320) studies to EPA upon completion.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6(e). Your release for shipment of the product constitutes acceptance of these conditions.

A stamped copy of the label is enclosed for your records.

Joanne I. Miller
Product Manager (23)
Herbicide Branch
Registration Division (7505C)

Enclosure

ACCEPTED with COMMENTS In EPA Letter Dated: APR 11 2005 Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 264-XXX

Liberty[®] 280 SL HERBICIDE

A SELECTIVE HERBICIDE FOR USE ONLY ON COTTON TOLERANT TO THE ACTIVE INGREDIENT IN THIS PRODUCT. BAYER CROPSCIENCE RECOMMENDS USE ONLY ON SEED DESIGNATED AS LIBERTYLINK[®] OR WARRANTED BY BAYER CROPSCIENCE AS BEING TOLERANT TO LIBERTY[®] 280 SL HERBICIDE. MAY ALSO BE USED AS A HERBICIDE FOR HOODED-SPRAYER APPLICATION ONLY IN COTTON NOT TOLERANT TO THE ACTIVE INGREDIENT IN THIS PRODUCT.

ACTIVE INGREDIENT: Glufosinate-ammonium* 24.5%**
 OTHER INGREDIENTS: 75.5%
 *CAS Number 77182-82-2, protected by U.S. Patent No 4,400,196
 **Equivalent to 2.34 pounds of active ingredient per U.S. gallon. TOTAL 100.00%

EPA Reg No. 264-XXX EPA Est. No. 264-MI-001
 EPA Est. No. 407-IA-2

KEEP OUT OF REACH OF CHILDREN WARNING - AVISO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.
 (If you do not understand the label, find someone to explain it to you in detail.)

For MEDICAL And TRANSPORTATION Emergencies ONLY Call 24 Hours A Day 1-800-334-7577
 For PRODUCT USE Information Call 1-866-99BAYER (1-866-992-2937)

FIRST AID

If swallowed	<ul style="list-style-type: none"> Rinse mouth thoroughly with plenty of water. Do not induce vomiting. Get medical attention immediately.
If in Eyes	<ul style="list-style-type: none"> Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Get medical attention if irritation develops or persists.
If on skin or clothing	<ul style="list-style-type: none"> Take off contaminated clothing. Wash skin immediately with plenty of soap and water. Get medical attention.
If inhaled	<ul style="list-style-type: none"> Move person to fresh air. Get medical attention if breathing difficulty develops.

HOT LINE NUMBER

Have the product container or label with you when calling a poison control center or doctor, or when going for treatment. Call 1-800-334-7577 for emergency medical treatment information.

NOTE TO PHYSICIAN

If this product is ingested, endotracheal intubation and gastric lavage should be performed as soon as possible, followed by charcoal and sodium sulfate administration. Additionally, call 1-800-334-7577 immediately for further information.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS WARNING

May be fatal if absorbed through skin. Causes moderate eye irritation. Harmful if swallowed. Do not get in eyes, on skin, or on clothing. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash clothing before reuse.

Personal Protective Equipment (PPE)

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category C on an EPA chemical resistance category selection chart.

Applicators and other handlers must wear:

Coveralls worn over short-sleeved shirt and short pants; chemical-resistant gloves such as barrier laminate, butyl rubber ≥ 14 mils, nitrile rubber ≥ 14 mils, neoprene rubber ≥ 14 mils, polyvinyl chloride (PVC) ≥ 14 mils, or Viton® ≥ 14 mils; chemical resistant footwear plus socks; protective eyewear. Wear a chemical resistant apron when mixing/loading and cleaning equipment.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

Mixers/loaders supporting aerial applications must wear a dust/mist filtering respirator (MSHA/NIOSH approval number prefix TC-21C), or a NIOSH approved respirator with any N, R, P or HE filter.

Engineering control statement:

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [(40 CFR 170.240(d)(4-6)), the handler PPE requirements may be reduced or modified as specified in the WPS.

USER SAFETY RECOMMENDATIONS

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

Do not apply directly to water or to areas where surface water is present. Do not apply to intertidal areas below the mean high water mark. Do not contaminate water by cleaning of equipment or disposal of equipment washwaters.

This pesticide is toxic to vascular plants and should be used strictly in accordance with the drift and run-off precautions on this label in order to minimize off-site exposures.

Under some conditions, this product may have a potential to run-off to surface water or adjacent land. Where possible, use methods which reduce soil erosion, such as no till, limited till and contour plowing; these methods also reduce pesticide run-off. Use of vegetation filter strips along rivers, creeks, streams, wetlands, etc. or on the downhill side of fields where run-off could occur to minimize water run-off is recommended.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal.

Do not use or store near heat or open flame. Keep the container tightly closed and dry in a cool, well-ventilated place. Storage temperature should not exceed 125°F. If storage temperature for bulk Ignite Herbicide is below 32°F, the material should not be pumped until its temperature exceeds 32°F. Protect against direct sunlight.

PESTICIDE DISPOSAL: Wastes resulting from the use of this product may be disposed of on-site or at an approved waste disposal facility.

CONTAINER DISPOSAL: [1 and 2½ Gallon Containers Only]

Empty containers should be triple rinsed (or equivalent), then offer for recycling or reconditioning; or puncture and dispose of in a sanitary landfill, or by incineration; or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

[15 Gallons, 60 Gallons, 120 Gallons & Bulk Containers Only]

This is a sealed returnable container to be used only for Liberty® 280 SL Herbicide. When this container is empty, it must not be opened, cleaned, or discarded. Empty containers must be returned to the original purchase location.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Do not use this product until you have read the entire label. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application.

For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

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AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses; and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), and restricted-entry intervals. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry-interval (REI) of 12 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is: coveralls worn over short-sleeved shirt and short pants; chemical-resistant gloves such as barrier laminate, butyl rubber ≥14 mils, nitrile rubber ≥14 mils, neoprene rubber ≥14 mils, polyvinyl chloride (PVC) ≥14 mils, or Viton® ≥14 mils; chemical resistant footwear plus socks; protective eyewear.

GENERAL INFORMATION

Liberty® 280 SL Herbicide is a water-soluble herbicide for application as a foliar spray for the control of a broad spectrum of emerged annual and perennial grass and broadleaf weeds in cotton.

IMPORTANT CROP SAFETY INFORMATION

READ BEFORE USING THIS PRODUCT

Liberty® 280 SL Herbicide is for use only on cotton tolerant to the active ingredient in this product. Bayer CropScience recommends use only on cotton designated as LibertyLink® or warranted by Bayer CropScience as being tolerant to Liberty® 280 SL Herbicide.

The basis of selectivity of Liberty® 280 SL Herbicide in cotton is the presence of a gene in LibertyLink® or other Bayer CropScience warranted cotton varieties which results in a plant that is tolerant to the active ingredient of Liberty® 280 SL Herbicide. Cotton not containing this gene will not be tolerant to Liberty® 280 SL Herbicide and severe injury may result.

Liberty® 280 SL Herbicide is to be applied either to cotton tolerant to the active ingredient in Liberty® 280 SL Herbicide as a post-emergent, over-the-top or directed foliar spray; or to conventional or other transgenic cotton not tolerant to the active ingredient in Liberty® 280 SL Herbicide using a hooded sprayer.

Use of Liberty® 280 SL Herbicide on cotton not designated as LibertyLink® or not warranted by Bayer CropScience may result in severe crop injury and/or yield loss.

Do not allow spray to contact foliage or green tissue of desirable vegetation other than cotton tolerant to the active ingredient in this product. This product may injure or kill all green vegetation contacted by the spray other than LibertyLink® cotton or other cotton varieties warranted by Bayer CropScience.

Bayer CropScience does not warrant the crop safety or weed control of this product if used on cotton varieties other than those designated as LibertyLink® or warranted by Bayer CropScience to safely withstand the application of Liberty® 280 SL Herbicide.

SPRAY DRIFT

SENSITIVE AREAS: The pesticide should only be applied when the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, known habitats for threatened or endangered species, non-target crops) is minimal (e.g., when wind is blowing away from the sensitive areas).

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment-and-weather-related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

Do not apply under circumstances where possible drift to unprotected persons or to food, forage, or other plantings that might be damaged or crops thereof rendered unfit for sale, use or consumption can occur.

The following drift management requirements must be followed to avoid off-target drift movement from aerial applications to agricultural field crops.

1. The distance of the outer most nozzles on the boom must not exceed 3/4 the length of the wingspan or rotor.
2. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.
3. All aerial and ground application equipment must be properly maintained and calibrated using appropriate carriers.

Where states have more stringent regulations, they should be observed. The applicator should be familiar with and take into account the information covered in the [Aerial Drift Reduction Advisory Information](#).

INFORMATION ON DROPLET SIZE:

The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if

applications are made improperly, or under unfavorable environmental conditions (see Wind, Temperature and Humidity, and Temperature Inversions below).

Uniform, thorough spray coverage is important to achieve consistent weed control. Select nozzles and pressure that deliver **MEDIUM** spray droplets as indicated in nozzle manufacturer's catalogs and in accordance with ASAE Standard S-572. Nozzles that deliver **COARSE** spray droplets may be used to reduce spray drift provided spray volume per acre (GPA) is increased to maintain coverage of weeds.

CONTROLLING DROPLET SIZE:

- Volume - Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- Pressure - Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.
- Number of nozzles - Use the minimum number of nozzles that provide uniform coverage.
- Nozzle Orientation - Orienting nozzles so that the spray is released parallel to the airstream produces larger droplets than other orientations and is the recommended practice. Significant deflection from horizontal will reduce droplet size and increase drift potential.
- Nozzle Type - Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce the largest droplets and the lowest drift.

BOOM LENGTH:

For some use patterns, reducing the effective boom length to less than 3/4 of the wingspan or rotor length may further reduce drift without reducing swath width.

APPLICATION HEIGHT:

Applications should not be made at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

For ground boom applications, apply with nozzle height no more than 4 feet above the ground or crop canopy.

SWATH ADJUSTMENT:

When applications are made with a crosswind, the swath will be displaced downward. Therefore, on the up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase, with increasing drift potential (higher wind, smaller drops, etc.)

WIND:

Drift potential is lowest between wind speeds of 2 - 10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high inversion potential. **NOTE:** Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

For all non-aerial applications, wind speed must be measured adjacent to the application site, on the upwind side, immediately prior to application.

TEMPERATURE AND HUMIDITY:

When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry. Avoid spraying during conditions of low humidity and/or high temperatures.

TEMPERATURE INVERSIONS:

Do not make aerial or ground applications into areas of temperature inversions. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

CLEANING INSTRUCTIONS

Before using Liberty® 280 SL Herbicide, thoroughly clean bulk storage tank, refillable tank, nurse tanks, spray tank, lines, and filter, particularly if a herbicide with the potential to injure crops was previously used. Equipment should be thoroughly rinsed using a strong detergent solution.

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After using Liberty® 280 SL Herbicide, triple rinse the spray equipment and clean with a commercial tank cleaner before using for crops not labeled LibertyLink® or warranted by Bayer CropScience. Make sure any rinsate or foam is thoroughly removed from spray tank and boom. Rinsate may be disposed following the pesticide disposal directions on this label.

APPLICATION DIRECTIONS FOR USE ON COTTON

Liberty® 280 SL Herbicide may be applied as a broadcast, over-the-top, post-emergence spray or as a directed spray only to LibertyLink® cotton or other cotton varieties or cultivars warranted by Bayer CropScience as tolerant to Liberty® 280 SL Herbicide.

This product may be applied post-emergence to non-tolerant cotton varieties or cultivars by using equipment designed to minimize contact of the spray with the cotton foliage. See the *Application Methods on Non-Tolerant Cotton* section for selection of shielding equipment. **SEVERE INJURY OR DEATH MAY RESULT IF THE LIBERTY® 280 SL HERBICIDE CONTACTS THE FOLIAGE OR STEMS OF COTTON NOT TOLERANT TO LIBERTY® 280 SL HERBICIDE.**

Liberty® 280 SL Herbicide is only foliar-active with little or no activity in soil. Weeds that emerge after application will not be controlled. Apply Liberty® 280 SL Herbicide to actively growing weeds as described in the *Applications Methods* section to get maximum weed control. **THOROUGH SPRAY COVERAGE IS NECESSARY FOR BEST HERBICIDAL PERFORMANCE.** Necrosis of leaves and young shoots occur within 2 to 4 days after application under good growing conditions.

Liberty® 280 SL Herbicide is rainfast four (4) hours after application to most weed species; therefore, rainfall within four (4) hours may necessitate retreatment or may result in reduced weed control. Do not apply when wind causes drift to off-site vegetation as injury may occur. Weed control may be reduced if application is made when heavy dew, fog and mist/rain are present; or when weeds are under stress due to environmental conditions such as drought, cool temperatures or extended periods of cloudiness. To maximize weed control, do not cultivate from 5 days before an application to 7 days after an application.

Refer to the *Rate Recommendation Tables for Weed Control in Cotton* section of this label for selection of the proper rate dependent upon weed species present and size. A repeat application of Liberty® 280 SL Herbicide or tank mixes with a residual herbicide will be needed to control weeds that have not emerged at the time of application. See the *Tank Mix Recommendations for Use on Cotton* to select suitable tank mix partners.

RESTRICTIONS TO THE DIRECTIONS FOR USE ON COTTON

1. **DO NOT** apply Liberty® 280 SL Herbicide to genetically modified cotton in Florida, South of Tampa (Florida Route 60), or in Hawaii, except for test plots or breeding nurseries.
2. **DO NOT** apply more than 29 fluid ounces per acre of Liberty® 280 SL Herbicide in a single application.
3. **DO NOT** apply more than 58 fluid ounces per acre of Liberty® 280 SL Herbicide to cotton.
4. **DO NOT** apply Liberty® 280 SL Herbicide within 70 days prior to the cotton harvest.
5. **DO NOT** plant rotation crops in a field treated with Liberty® 280 SL Herbicide within 120 days after the last application of this product with the exception of wheat, barley, buckwheat, millet, oats, rye, sorghum, and triticale which may be planted within 70 days after the last application of this product. The crops listed on this label may be planted at any time.
6. **DO NOT** apply this product through any type of irrigation system.

MIXING INSTRUCTIONS

Liberty® 280 SL Herbicide must be applied with calibrated spray equipment. Liberty® 280 SL is formulated to mix readily in water. Prior to adding Liberty® 280 SL to the spray tank, ensure that the spray tank is thoroughly cleaned and free of other pesticides that may injure cotton (see *Cleaning Instructions*). See the *Tank Mix Recommendation for Use in Cotton* to select suitable tank mix partners and for directions for testing compatibility of tank mixtures.

Mix the finished spray solution as follows:

1. Fill the spray tank half-full with water.
2. Start agitation.
3. If mixing with a dry flowable/wettable powder tank mix partner, prepare a slurry of the proper amount of the product in a small amount of water. Add the slurry of dry materials to the spray tank.
4. If mixing with a liquid tank mix partner, add the liquid tank mix partner.
5. Complete filling the spray tank with water.
6. Add Liberty® 280 SL Herbicide and continue agitation.
7. If foaming occurs, use a silicon-based anti-foam agent.

Ensure that all spray system lines including pipes, booms, and screens have the correct concentration of the spray solution by flushing out the system lines before starting the crop application. Keep bypass line on or near bottom of tank to minimize foaming.

If a tank mix partner is added, maintain agitation until the contents of the tank is sprayed. If the spray mixture is allowed to settle, thorough agitation is required to resuspend the mixture before spraying is resumed. Keep bypass line on or near bottom of tank to minimize foaming. Screen size in nozzles or line strainers must be 50 mesh or larger.

APPLICATION TO COTTON TOLERANT TO LIBERTY® 280 SL HERBICIDE

APPLICATION TIMING TO TOLERANT COTTON

Liberty® 280 SL Herbicide may be applied to cotton tolerant to Liberty® 280 SL Herbicide from emergence up to the early bloom stage. Up to 29 fluid ounces of Liberty® 280 SL Herbicide per acre may be applied per application. Up to 58 fluid ounces per acre may be applied per year.

APPLICATION METHODS TO TOLERANT COTTON

Refer to the *Rate Recommendation Tables for Weed Control in Cotton* to select the proper application rate based upon the weeds present and their size. Uniform and thorough spray coverage is required to achieve consistent weed control.

Ground Application: Apply Liberty® 280 SL Herbicide to tolerant cotton as an over-the-top foliar spray or as a spray directed to the lower one-third of the cotton stand. Liberty® 280 SL Herbicide should be applied broadcast in a minimum of 15 gallons of water per acre. Use a spray volume of 20 to 40 gallons per acre for dense weed/crop canopies so that thorough spray coverage will be obtained. Use nozzles that will develop no coarser than a medium spray pattern. Typical nozzles include flat fans, extended range flat fans, and Turbo TeeJet®. If Turbo TeeJet spray tips are used, a spray pressure of 60 or more pounds per square inch will be required to get thorough coverage of the weed foliage. Flood-jet nozzles, raindrop nozzles, controlled droplet application equipment or air-assisted (air injection) spray equipment do not provide adequate coverage characteristics; and therefore, are not recommended because weed control is likely to be reduced.

Do not apply when winds are gusty or when conditions will favor movement of spray particles off the desired spray target as injury to off-site vegetation may occur. Apply Liberty® 280 SL Herbicide with the spray boom as low as possible while maintaining a uniform spray pattern to avoid drift and insure thorough coverage of the weeds. For ground boom applications, apply with nozzle height no more than 4 feet above the ground or crop canopy.

Aerial Application: Apply Liberty® 280 SL Herbicide with aerial equipment in a minimum of 10 gallons of water and at a height of 10 to 14 feet above cotton. Nozzle outlets should be below the trailing edge of the wing to avoid areas of turbulence. Use low-drift nozzles such as CP low drift nozzles, straight streams, or narrow angle flat fans (45 degrees or less). Utilize setups that will develop a Medium spray category as defined by ASAE S-572. Select a nozzle pressure that will generate a Medium spray category based upon the selected air speed and nozzle type. (See *Spray Drift* section).

APPLICATION TO COTTON VARIETIES NOT TOLERANT TO LIBERTY® 280 SL HERBICIDE

When applying to cotton *not tolerant* to Liberty® 280 SL Herbicide, use a hooded applicator designed to minimize exposure of the cotton stand to the spray as described in the *Application Methods To Non-Tolerant Cotton* section of this label. A hooded sprayer directs the spray onto weeds, while shielding the cotton stand from contact. Do not allow spray to contact foliage or stem of desirable vegetation. This product may injure or kill any green vegetation exposed to the spray.

APPLICATION TIMING TO NON-TOLERANT COTTON

Apply Liberty® 280 SL Herbicide to cotton from emergence up to the early bloom stage. Refer to the *Rate Recommendation Tables for Weed Control in Cotton* to select the proper application rate based on weeds present and their size. Uniform, thorough spray coverage is important to achieve consistent weed control.

APPLICATION METHODS TO NON-TOLERANT COTTON

Application of Liberty® 280 SL Herbicide to cotton varieties *not tolerant* to Liberty® 280 SL Herbicide requires the use of hooded spray equipment designed to minimize exposure of the spray to the cotton stand. Use nozzles that provide uniform coverage within the treated area. Keep hoods on these sprayers adjusted to protect desirable vegetation. **EXTREME CARE MUST BE EXERCISED TO AVOID EXPOSURE OF THE DESIRABLE VEGETATION TO THE SPRAY.**

With a hooded sprayer, the spray pattern is completely enclosed on the top and all 4 sides by a hood, thereby shielding the crop from the spray solution. This equipment must be set up and operated in a manner that avoids bouncing or raising the hoods off the ground in any way. The spray hoods must be operated on the ground or skimming across the ground. Tractor speed must be adjusted to avoid bouncing of the spray hoods. Avoid operation on rough or sloping ground where the spray hoods might be raised off the ground. If the hoods are raised, spray particles may escape and come into contact with the cotton, causing damage or destruction of the crop.

Herbicide rates and spray volume recommendations are presented as broadcast equivalents and must be reduced in proportion to the area actually treated. Use the following formulas to calculate the correct rate and volume per planted (field) acre:

$$\frac{\text{Band width in inches}}{\text{Row width in inches}} \times \text{Broadcast RATE per acre} = \text{Amount of banded product needed per acre}$$

$$\frac{\text{Band width in inches}}{\text{Row width in inches}} \times \text{Broadcast spray VOLUME per acre} = \text{Banded spray volume needed per acre}$$

RATE RECOMMENDATION TABLES FOR WEED CONTROL IN COTTON

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Liberty® 280 SL is formulated with a surfactant to provide optimum herbicide performance. Apply Liberty® 280 SL Herbicide at rates from 23 to 29 fluid ounces per acre. The rate of Liberty® 280 SL Herbicide in fluid ounces of formulated product per acre to be used for the control of weeds at specific heights is shown in the following tables. Increase the rate to 29 fluid ounces per acre for weeds exceeding the maximum weed height. In weed populations with mixed species, select the highest rate required to control all the species. Volunteer LibertyLink® crop plants (corn, rice, cotton, soybeans, sugarbeets) from the previous season will not be controlled by applications of Liberty® 280 SL Herbicide.

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Broadleaf Weeds Controlled by Liberty® 280 SL Herbicide

Weed Species	Maximum Weed Height (inches)
	23 Fl. Oz./A
Amaranth, Palmer	3
Anoda, spurred	3
Beggarweed, Florida	3
Black medic	5
Blueweed, Texas	5
Burcucumber	8
Carpetweed	4
Chickweed, common	6
Cocklebur, common	12
Copperleaf, hophornbeam	4
Cotton, volunteer ^{1,2}	6
Croton, tropic	3
Croton, woolly	2
Eclipta	4
Devil's claw	2
Fleabane, annual	6
Groundcherry, cutleaf	4
Geranium, cutleaf	4
Horsenettle, Carolina ³	2
Jimsonweed	8
Knotweed	3
Ladysthumb	12
Lambsquarters, common	4
Mallow, common	4
Mallow, Venice	6
Marestail	10
Marshelder, annual	4
Morningglory, entireleaf	6
Morningglory, ivyleaf	6
Morningglory, pitted	6
Morningglory, sharppod	2
Morningglory, smallflower	4
Morningglory, tall	6
Mustard, wild	4
Nightshade, black	4
Nightshade, eastern black	6
Nightshade, hairy	6
Pennycress	4
Pigweed, redroot	3
Pigweed, prostrate	3

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Weed Species	Maximum Weed Height (inches)
	23 Fl. Oz./A
Pigweed, spiny	3
Pigweed, smooth	3
Pigweed, tumble	3
Puncturevine	4
Purslane, common	2
Pusley, Florida	*
Ragweed, common	8
Ragweed, giant	10
Senna coffee	4
Sesbania, hemp	6
Shepherd's-Purse	6
Sicklepod	4
Sida, prickly	4
Smartweed, Pennsylvania	12
Smellmelon	4
Sowthistle, annual	6
Soybeans, volunteer ^{1,2}	6
Spurge, prostrate	2
Spurge, spotted	2
Starbur, bristly	4
Sunflower, common	12
Sunflower, prairie	3
Sunflower, volunteer	8
Thistle, Russian	4
Velvetleaf	3
Waterhemp, common	4
Waterhemp, tall	4

* Indicates suppression

¹ Volunteer LibertyLink® cotton or soybeans from the previous season will not be controlled.

² Cultivation 7 to 10 days after application and/or retreatment 10-21 days after the first application is recommended for controlling dense clumps of volunteer soybeans and cotton.

³ Two applications of Liberty® 280 SL Herbicide may be required for control of Carolina horsenettle.

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Grass Weeds Controlled by Liberty® 280 SL Herbicide

Weed Species	Maximum Weed Height (inches)
	23 Fl. Oz./A
Barnyardgrass	3
Bluegrass, annual	3
Corn, volunteer ^{1,2}	10
Crabgrass, large	3
Crabgrass, smooth	3
Cupgrass, woolly	10
Foxtail, bristly	6
Foxtail, giant	10
Foxtail, green	10
Foxtail, robust purple	6
Foxtail, yellow ³	3
Goosegrass ⁴	2
Johnsongrass, seedling	3
Junglerice,	3
Panicum, fall	3
Panicum, Texas	4
Rice, red	4
Rice, volunteer ^{1,2}	4
Sandbur, field	*
Signalgrass, broadleaf	3
Sprangletop	4
Sorghum, volunteer	6
Stinkgrass	4
Witchgrass	4

* Indicates suppression

¹ Volunteer LibertyLink® corn or rice from the previous season will not be controlled.

² A timely cultivation 7 to 10 days after application and/or retreatment 10-21 days after the first application is recommended for controlling dense clumps of volunteer corn or rice.

³ For best control of yellow foxtail, treat prior to tiller initiation.

⁴ A sequential application may be necessary.

INSTRUCTIONS FOR BIENNIAL/PERENNIAL WEEDS

Liberty® 280 SL Herbicide applied at 29 fluid ounces per acre may control or suppress the biennial and perennial weed species shown in the following table. Control of biennial and perennial weeds may be enhanced with a second application of Liberty® 280 SL Herbicide or by a tank mix with the herbicides specified on this label.

Biennial and Perennial Weeds Controlled with Liberty® 280 SL Herbicide

Weed Species	29 Fluid Ounce/Acre	23 Fluid Ounce/Acre followed by 23 Fluid Ounce/Acre
Alfalfa	*	✓
Artichoke, Jerusalem	*	✓
Bermudagrass		✓
Bindweed, field	*	✓
Bindweed, hedge	*	✓
Bluegrass, Kentucky	*	✓
Bluweed, Texas		✓
Bromegrass, smooth	*	✓
Bursage, woollyleaf	*	✓
Chickweed, Mouse-ear	*	✓
Clover, red	*	✓
Dandelion	*	✓
Dock, smooth	*	✓
Dogbane, hemp	*	*
Johnsongrass, rhizome	*	✓
Milkweed, common	*	*
Milkweed, honeyvine	*	*
Nightshade, silverleaf		✓
Nutsedge, purple		
Nutsedge, yellow		
Orchardgrass	*	✓
Poinsettia, wild	*	✓
Pokeweed	*	✓
Thistle, bull	*	✓
Thistle, Canada	*	✓

✓ Indicates control

* Indicates suppression

TANK MIX RECOMMENDATIONS FOR USE ON COTTON

Liberty® 280 SL Herbicide may be applied in tank mix combinations with labeled rates of other products provided these other products are labeled for the timing and method of application for the cotton to be treated. The tank mix partner must be used in accordance with the label limitations and precautions. No label dosage rates may be exceeded. Liberty® 280 SL Herbicide cannot be mixed with any product containing a label prohibition against such mixing. Refer to the specific crop section for rate recommendations and other restrictions.

TOLERANT COTTON

For cotton tolerant to Liberty® 280 SL Herbicide, Dual Magnum II® or STAPLE® Herbicide may be tank-mixed with Liberty® 280 SL Herbicide and applied over-the-top post-emergence to enhance weed control and/or provide residual control.

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ALL COTTON TYPES

The following herbicides may be mixed with Liberty® 280 SL Herbicide for hooded-spray application to enhance weed control and/or provide residual control:

Caparol® 4L Herbicide	Direx® 4L Herbicide	Prowl® 3.3EC Herbicide
Cotoran® 4L Herbicide	Direx® 80DF Herbicide	Staple® Herbicide
Cotoran® DF herbicide	Karmex® DF Herbicide	AIM™ Herbicide
Glyphosate	Pendimex™ 3.3 Herbicide	

COMPATIBILITY TESTING

If Liberty® 280 SL Herbicide is to be mixed with pesticide products labelled for cotton other than those listed above, test the compatibility of the intended tank mixture to mixing prior to mixing the products in the spray tank. The following procedure assumes a spray volume of 25 gallons per acre. For other spray volumes, adjust the amount of the water used accordingly. Check compatibility as follows:

1. Place 1.0 pint of water from the source that will be used to prepare the spray solution in a clear 1-quart jar.
2. For each pound of a dry tank mix partner to be applied per acre, add 1.5 teaspoons to the jar.
3. For each 16 fluid ounces of a liquid tank mix partner to be applied per acre, add 0.5 teaspoon to the jar.
4. For each 16 fluid ounces of Liberty® 280 SL Herbicide to be applied per acre, add 0.5 teaspoon to the jar.
5. After adding all the ingredients, place a lid on the jar and tighten. Invert 10 times to mix.
6. Let the mixture stand for 15 minutes, and evaluate the solution for uniformity and stability. Look for separation, large flakes, precipitates, gels, heavy oily film on the jar, or other signs of incompatibility. If the tank mix partners are not compatible, do not use the mixture in a spray tank.
7. After compatibility testing is complete, dispose of any pesticide wastes in accordance with the *Storage and Disposal* section of this label.

APPLICATION DIRECTIONS FOR USE IN COTTON SEED PROPAGATION

Ignite Herbicide may be used as a foliar spray to selectively eliminate cotton plants that do not carry a gene that imparts tolerance to glufosinate-ammonium and as such, can be applied to remove susceptible segregates during cotton seed propagation. Breeding material not possessing the glufosinate-ammonium tolerance gene will be severely injured or killed if treated with this herbicide.

RESTRICTIONS TO THE DIRECTIONS FOR USE

1. **DO NOT** apply more than 29 fluid ounces per acre of Liberty® 280 SL Herbicide to cotton in a single application.
2. **DO NOT** apply more than 58 fluid ounces per acre of Liberty® 280 SL Herbicide to cotton per season.
3. **DO NOT** plant rotation crops in a field treated with Liberty® 280 SL Herbicide within 120 days or more after the last application of this product with the exception of wheat, barley, buckwheat, millet, oats, rye, sorghum, and triticale which may be planted 70 days or more after the last application of this product. Corn, soybeans, canola, or sugarbeets tolerant to glufosinate-ammonium may be planted at any time.
4. **DO NOT** apply this product through any type of irrigation system.
5. **DO NOT** apply Liberty® 280 SL Herbicide within 70 days prior to the cotton harvest.

APPLICATION METHODS

Uniform, thorough spray coverage is important to achieve consistent weed control. For best results, use flat-fan nozzles.

Ground Application: Liberty® 280 SL Herbicide should be applied broadcast in a minimum of 15 gallons of water per acre. Use a spray volume of 20 to 40 gallons of water per acre under dense weed and crop populations so that thorough spray coverage will be obtained. Apply Liberty® 280 SL Herbicide using 80-degree or 110-degree flat-fan nozzles. Select a spray pressure between 30 to 60 pounds per square inch (measured at the nozzle) that will achieve a droplet size of about 300 microns. If Turbo TeeJet® spray tips are used, a spray pressure of 60 or more pounds per square inch will be required to get thorough coverage of the weed and crop foliage. Flood-jet nozzles, raindrop nozzles, controlled droplet application equipment or air-assisted spray equipment do not provide adequate coverage and are not recommended.

Do not apply when winds are gusty or when conditions will favor movement of spray particles off the desired spray target as injury to off-site vegetation may occur. Apply Liberty® 280 SL Herbicide with the spray boom as low as possible while maintaining a uniform spray pattern.

Aerial Application: Apply Liberty® 280 SL Herbicide with aerial equipment in a minimum of 10 gallons of water and at a height of 10 to 14 feet above cotton. Nozzle outlets should be below the trailing edge of the wing to avoid areas of turbulence. Use low-drift nozzles such as CP low drift nozzles, straight streams, or narrow angle flat fans (45 degrees or less). Utilize setups that will develop a Medium spray category as defined by ASAE S-572. Select a nozzle pressure that will generate a Medium spray category based upon the selected air speed and nozzle type.

Rate Recommendations and Timing for Cotton Seed Propagation

For the selection of susceptible cotton plant "segregates", apply Liberty® 280 SL Herbicide as an over-the-top foliar spray or as a post-directed spray from emergence up to the early bloom stage. Up to 29 fluid ounces of Liberty® 280 SL Herbicide per acre may be used per application. Do not apply more than 56 fluid ounces per acre of Liberty® 280 SL Herbicide per season.

TANK MIX RECOMMENDATIONS FOR USE IN COTTON SEED PROPAGATION

Liberty® 280 SL Herbicide may be applied in tank mix combinations with labeled rates of other products provided these other products are labeled for the timing and method of application for the cotton to be treated. The tank mix partner must be used in accordance with the its label limitations and precautions. No label dosage rates may be exceeded. Liberty® 280 SL Herbicide cannot be mixed with any product containing a label prohibition against such mixing. Refer to the specific crop section for rate recommendations and other restrictions.

TOLERANT COTTON

For cotton tolerant to Liberty® 280 SL Herbicide, Dual Magnum II® or STAPLE® Herbicide may be tank-mixed with Liberty® 280 SL Herbicide and applied over-the-top post-emergence to enhance weed control and/or provide residual control.

ALL COTTON TYPES

The following herbicides may be mixed with Liberty® 280 SL Herbicide for hooded-spray application to enhance weed control and/or provide residual control:

Caparol® 4L Herbicide	Direx® 4L Herbicide	Prowl® 3.3EC Herbicide
Cotoran® 4L Herbicide	Direx® 80DF Herbicide	Staple® Herbicide
Cotoran® DF herbicide	Karmex® DF Herbicide	AIM™ Herbicide
Glyphosate	Pendimex™ 3.3 Herbicide	

COMPATIBILITY TESTING

If Liberty® 280 SL Herbicide is to be mixed with pesticide products labelled for cotton other than those listed above, test the compatibility of the intended tank mixture to mixing prior to mixing the products in the spray tank. The following procedure assumes a spray volume of 25 gallons per acre. For other spray volumes, adjust the amount of the water used accordingly. Check compatibility as follows:

1. Place 1.0 pint of water from the source that will be used to prepare the spray solution in a clear 1-quart jar.
2. For each pound of a dry tank mix partner to be applied per acre, add 1.5 teaspoons to the jar.
3. For each 16 fluid ounces of a liquid tank mix partner to be applied per acre, add 0.5 teaspoon to the jar.
4. For each 16 fluid ounces of Liberty® 280 SL Herbicide to be applied per acre, add 0.5 teaspoon to the jar.
5. After adding all the ingredients, place a lid on the jar and tighten. Invert 10 times to mix.
6. Let the mixture stand for 15 minutes, and evaluate the solution for uniformity and stability. Look for separation, large flakes, precipitates, gels, heavy oily film on the jar, or other signs of incompatibility. If the tank mix partners are not compatible, do not use the mixture in a spray tank.
7. After compatibility testing is complete, dispose of any pesticide wastes in accordance with the *Storage and Disposal* section of this label.

FALLOW FIELDS OR POST HARVEST

Liberty® 280 SL Herbicide may be used as a substitute for tillage to control or suppress weeds in the grass, broadleaf and biennial/perennial weed tables in this label. Applications may be made in fallow fields, post harvest, prior to planting or emergence of cotton.

Refer to the *Application Methods* section of this labeling for appropriate application rates to control specific weeds. Liberty® 280 SL Herbicide must be applied with ammonium sulfate. Tank mixes with 2,4-D or glyphosate are recommended with Liberty® 280 SL Herbicide to enhance total weed control. When using Liberty® 280 SL Herbicide in tank mix combinations, follow the precautions and directions of use of the most restrictive label.

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Do not plant crops in a field treated with Liberty® 280 SL Herbicide for 120 days after the last application of this product with the exception of wheat, barley, buckwheat, millet, oats, rye, sorghum, and triticale which may be planted 70 days after the last application of this product. Corn, soybeans, sugar beets and canola may be planted at any time.

FARMSTEADS

When applied as recommended, this product controls undesirable plant vegetation in noncrop areas around farmstead building foundations, shelter belts, along fences, and general nonselective farmstead weed control. Refer to the *Application Methods* section of this labeling for appropriate application rates to control specific weeds.

IMPORTANT: READ BEFORE USE

Read the entire Directions for Use, Conditions, Disclaimer of Warranties and Limitations of Liability before using this product. If terms are not acceptable, return the unopened product container at once.

By using this product, user or buyer accepts the following Conditions, Disclaimer of Warranties and Limitations of Liability.

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Net Contents: 1 Gallon, 2.5 Gallons, 15 Gallons, 60 Gallons, 120 Gallons & Bulk

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Liberty® 280 SL Herbicide (MASTER) Submitted .